

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: WACHIPAUKA POND	Lake Area (ha):	9.02
Town: WARREN	Maximum depth (m):	9.1
County: Grafton	Mean depth (m):	3.2
River Basin: Merrimack	Volume (m ³):	286000
Latitude: 43°59' N	Relative depth:	2.7
Longitude: 71°55' W	Shore configuration:	1.50
Elevation (ft): 1494	Areal water load (m/yr):	6.06
Shore length (m): 1600	Flushing rate (yr ⁻¹):	1.90
Watershed area (ha): 85.5	P retention coeff.:	0.62
% watershed ponded: 0.0	Lake type:	natural w/dam

BIOLOGICAL:

18 March 1987

2 September 1987

DOM. PHYTOPLANKTON (% TOTAL) #1	SPARSE - NO DOMINANT	CHRYOSOPHAERELLA 35%
#2		DINOBYRON 20%
#3		SYNURA 10%
PHYTOPLANKTON ABUNDANCE (cells/mL)		2305.0
CHLOROPHYLL-A (µg/L)		5.29
DOM. ZOOPLANKTON (% TOTAL) #1	KELICOTTIA 30%	VORTICELLA 26%
#2	KERATELLA 28%	POLYARTHRA 21%
#3	SYNCHAETA 18%	
ROTIFERS/LITER	170	46
MICROCRUSTACEA/LITER	15	41
ZOOPLANKTON ABUNDANCE (#/L)	188	117
VASCULAR PLANT ABUNDANCE		Sparse
SECCHI DISK TRANSPARENCY (m)		2.7
BOTTOM DISSOLVED OXYGEN (mg/L)	0.9	0.4
BACTERIA (fecal col., #/100 ml) #1		< 10
#2		
#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 5.5
Hypolimnion volume (m³): 18500

CHEMICAL:

Lake: WACHIPAUKA POND

Town: WARREN

	18 March 1987		2 September 1987		
DEPTH (m)	3.0	6.0	2.0	5.0	7.5
pH (units)	6.0	5.9	6.5	6.1	6.2
A.N.C. (Alkalinity)	2.8	3.3	2.2	2.3	10.3
NITRATE NITROGEN	0.05	0.07	< 0.05	< 0.05	< 0.05
TOTAL KJELDAHL NITROGEN	0.80	0.73	1.03	0.58	0.71
TOTAL PHOSPHORUS	<0.001	<0.001	<0.001	0.013	0.021
CONDUCTIVITY (μ mhos/cm)	26.7	27.4	23.5	23.8	34.2
APPARENT COLOR (cpu)	22	23	22	23	35
MAGNESIUM			0.38		
CALCIUM			2.1		
SODIUM			1.0		
POTASSIUM			0.30		
CHLORIDE	< 2	< 2	< 2	< 2	< 2
SULFATE	6	6	5	< 1	4
TN : TP				45	34
CALCITE SATURATION INDEX			4.1		

All results in mg/L unless indicated otherwise

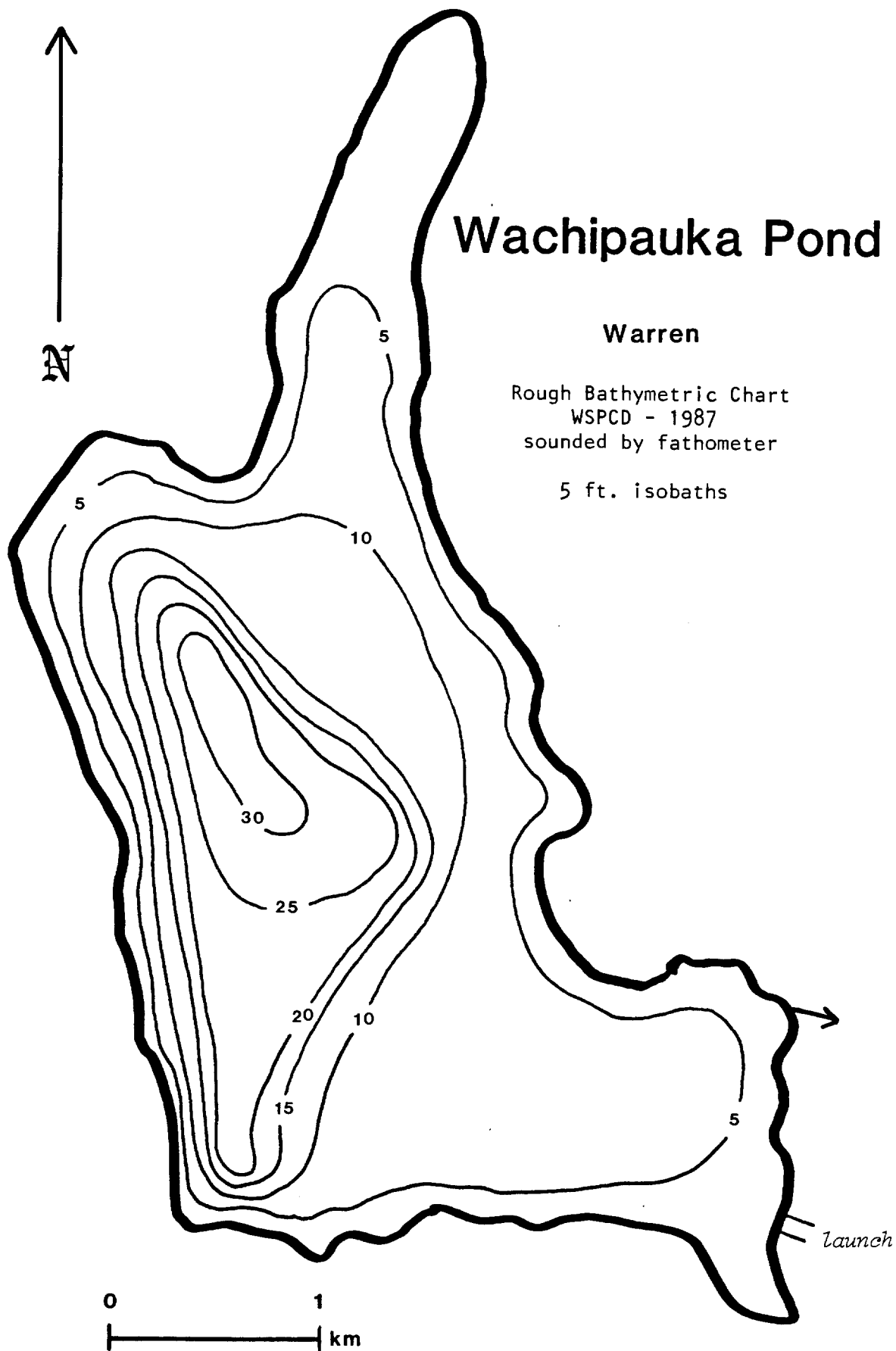
TROPHIC CLASSIFICATION: 1987

D.O. S.D. PLANT CHL TOTAL CLASS

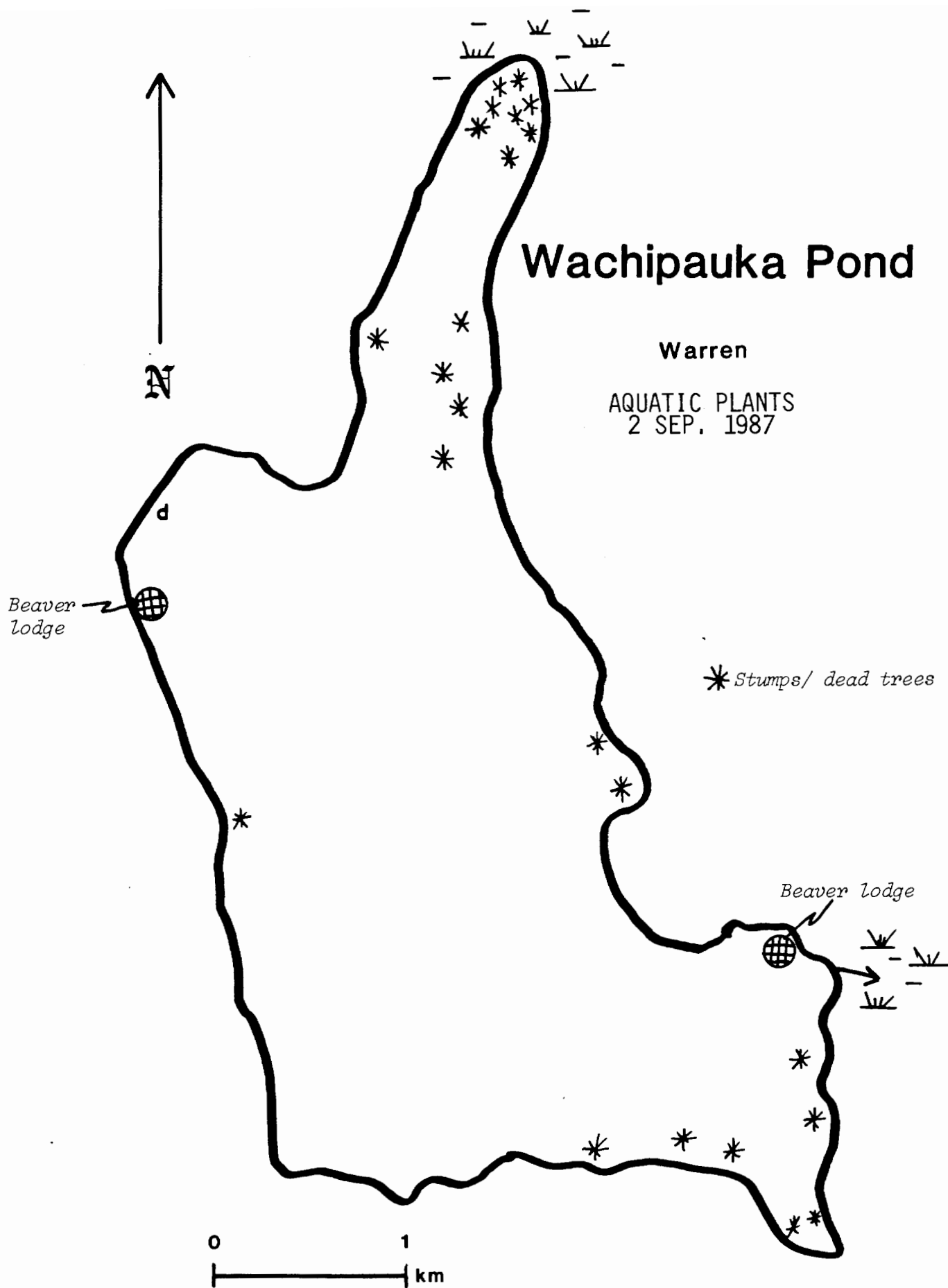
5	2	0	1	8	Meso.
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COMMENTS:

1. Formerly called Meader Pond.
2. This is a remote pond that is occasionally sampled by helicopter during the Fish & Game Department's Spring stocking flight. It can be accessed by a very rough jeep trail but hiking is recommended.
3. No launch area was present; no cottages were present.
4. Bluegreen algae was the dominant whole-water phytoplankton family (80%), with Merismopedia (80%) the dominant genus.



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